SIA Energy

24 March 2015

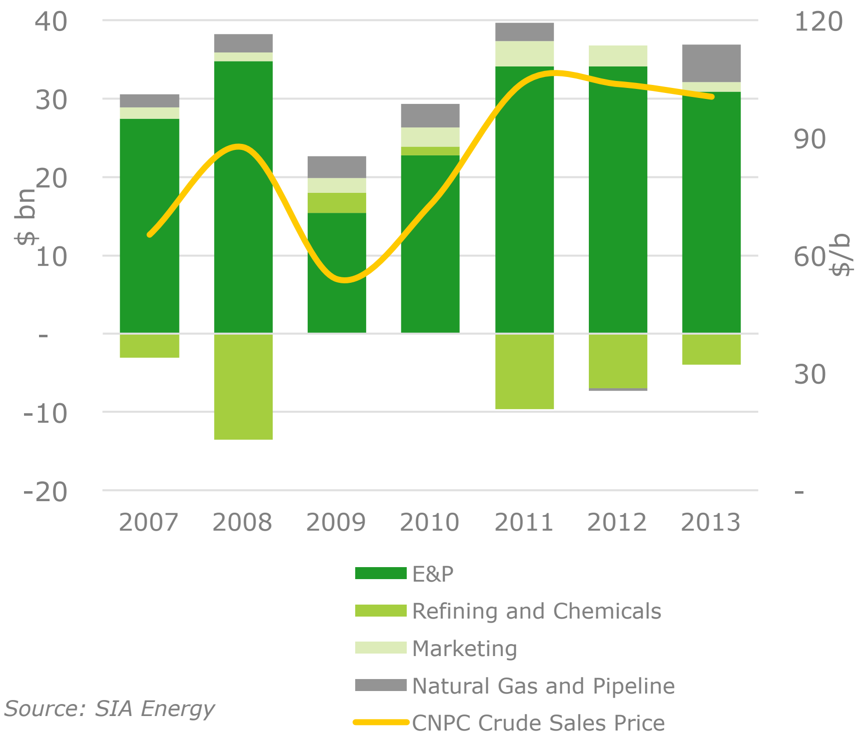
Impact of Oil Prices on Chinese NOC Spending

油田秋浓 (Oil Facility in Autumn), Changqing
Photography by 许兆超 (Zhaochao Xu)

NOC Profit Vulnerable to Low Crude Prices

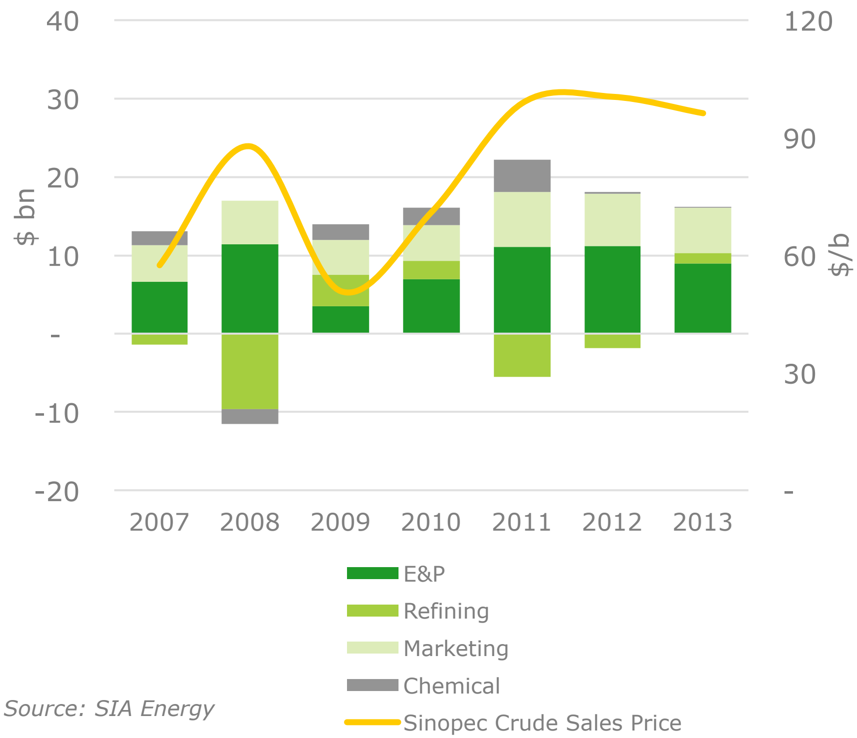
SIA Energy

PetroChina: Operating Profits by Segment (2007-2013)



Source: SIA Energy

Sinopec: Operating Profits by Segment (2007-2013)



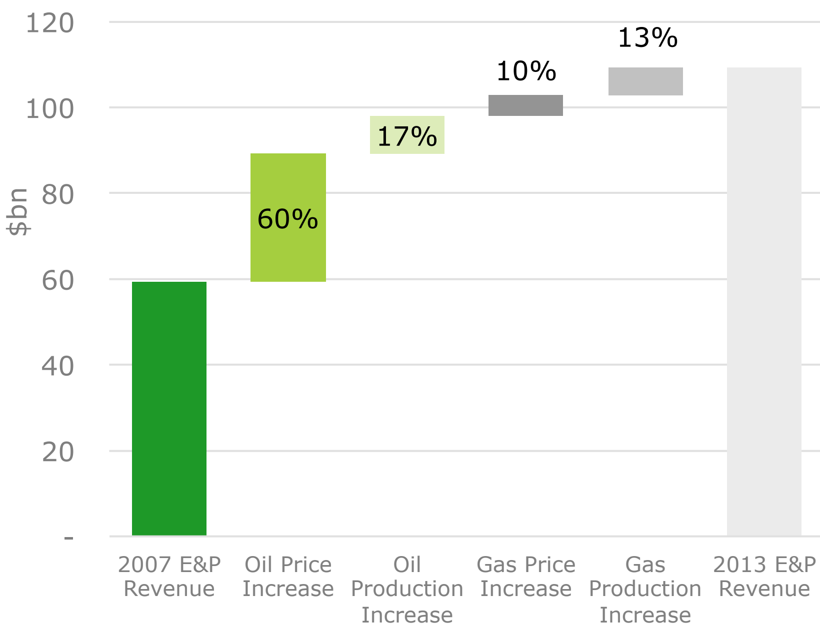
Source: SIA Energy

PetroChina is vulnerable to low oil prices because its E&P segment contributes to more than 100% of operating profits, given the fact that other segments suffered from losses.

Sinopec can weather a low crude price environment better: upstream profit suffer, but refining and chemical sectors will profit from cheaper feedstock.

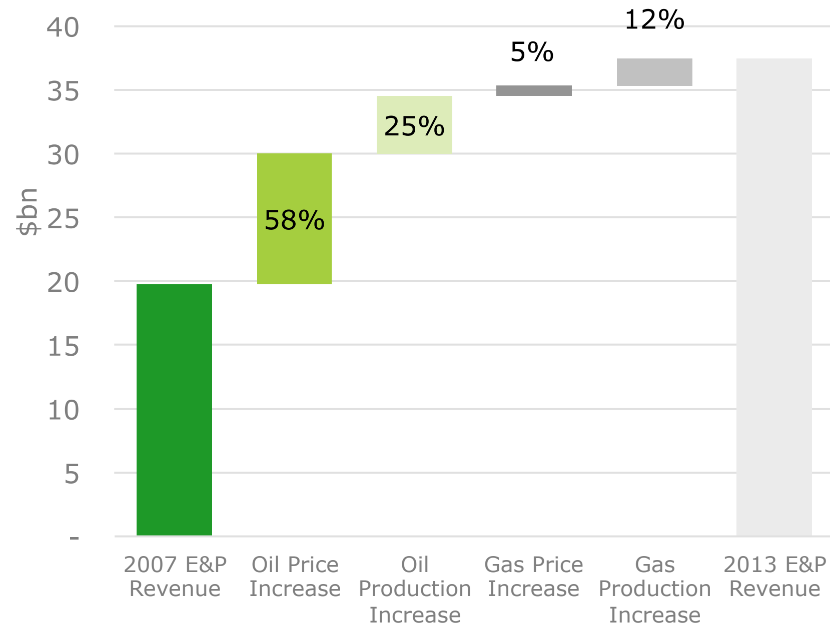
How Did Chinese NOC's E&P Revenue Grow?

PetroChina E&P Revenue Growth Attribution 2007-2013



Source: SIA Energy

Sinopec E&P Revenue Growth Attribution 2007-2013

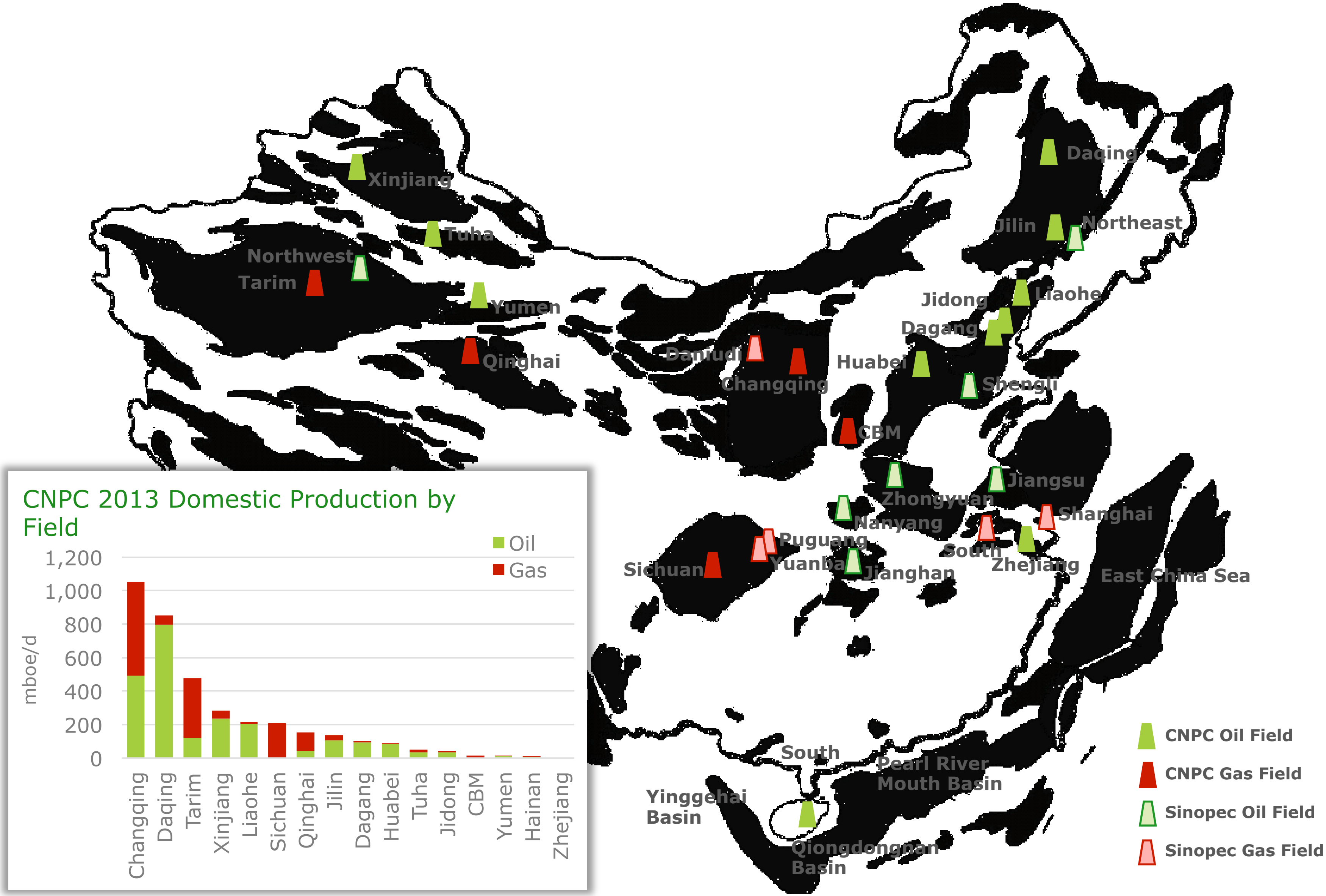


Source: SIA Energy

70% of PetroChina E&P revenue growth was from price increase since 2007

63% of Sinopec's E&P revenue growth derived from price increase

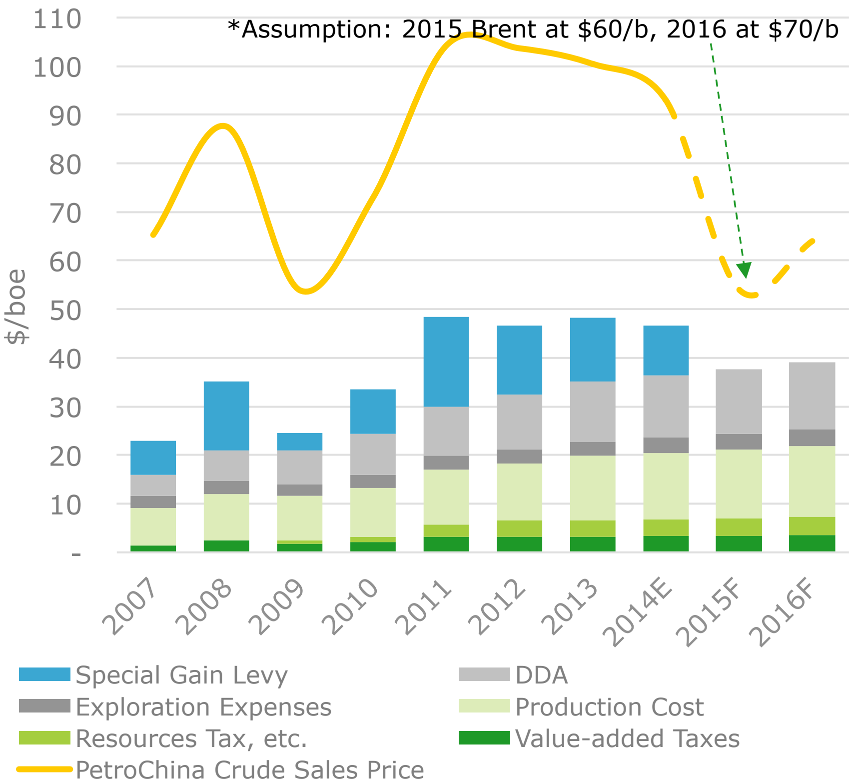
CNPC & Sinopec Domestic Oil & Gas Fields



Crude Price Influence on Chinese NOC E&P Profits

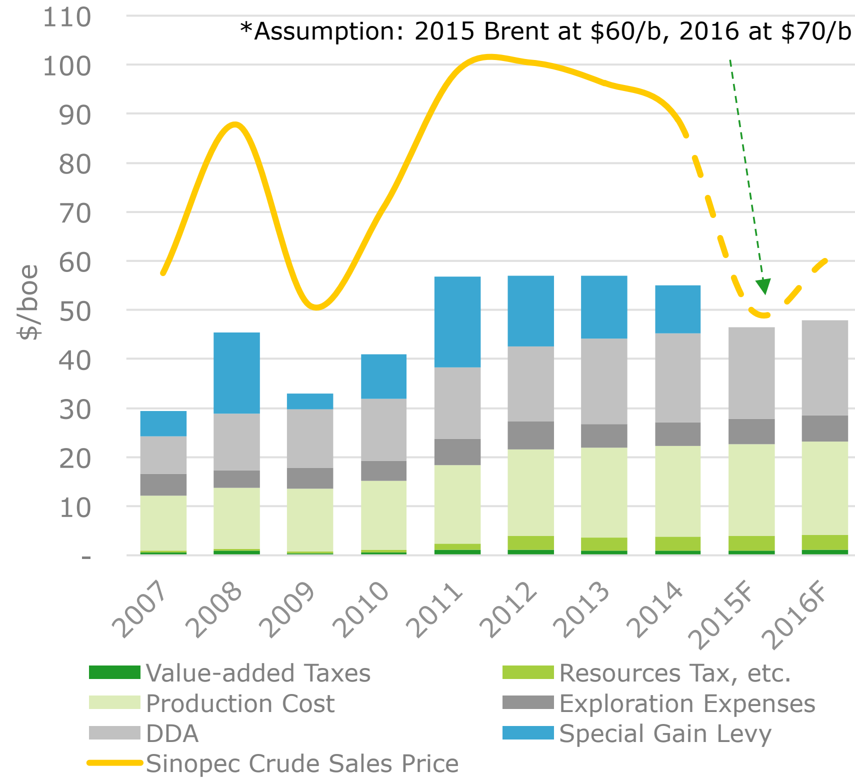
Margin heavily squeezed

PetroChina E&P Cost Per BOE



Source: 20-F, SIA estimate

Sinopec E&P Cost Per BOE



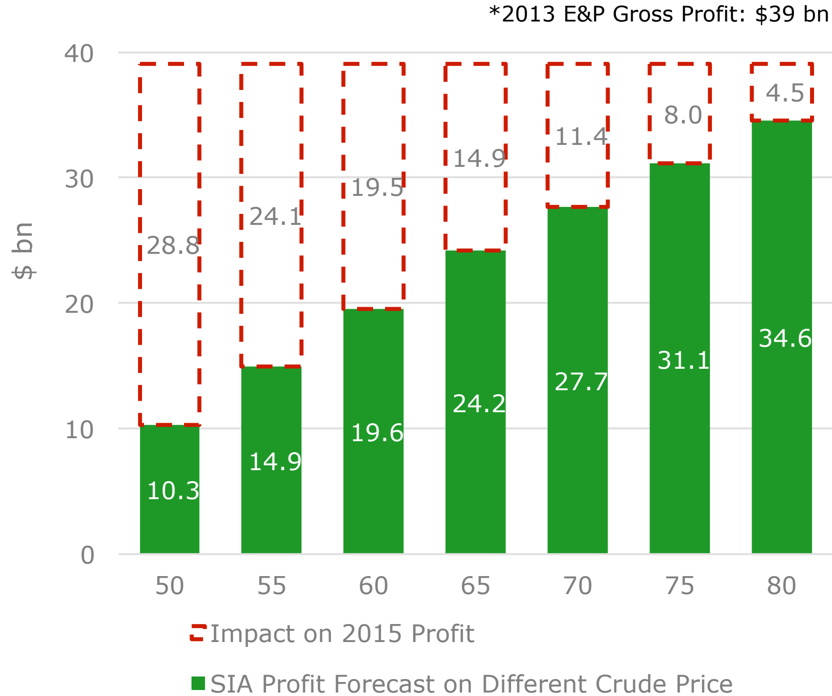
Source: 20-F, SIA estimate

- NOCs’ domestic assets are mature and declining, and both of their largest oil fields have water cut above 90%. Lifting costs are high and increasing. Overall cost will hit $49/b and $39/b by 2015 for Sinopec and CNPC, respectively.

Crude Price Influence on Chinese NOC E&P Profits

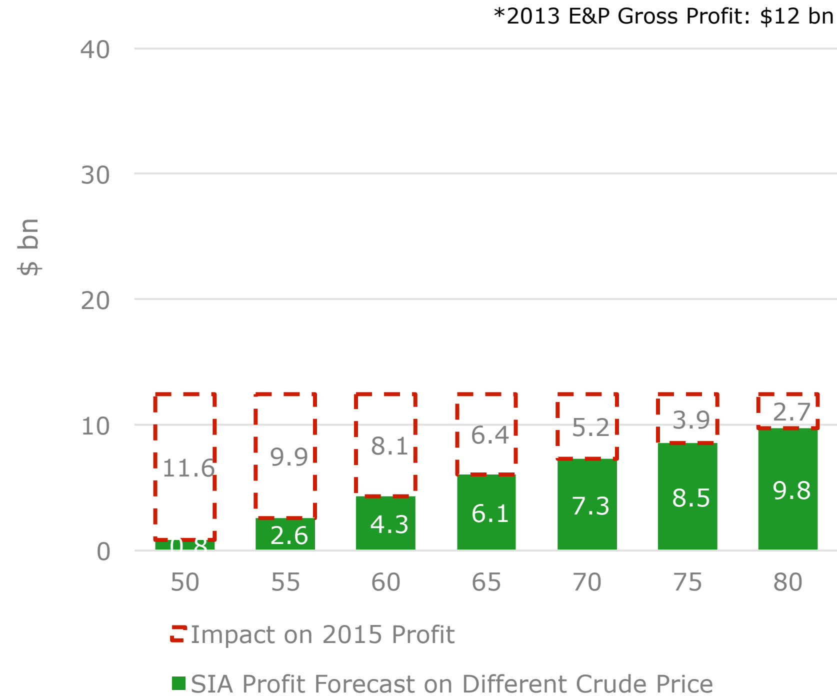
Sensitivity analysis

PetroChina E&P Profit Under Different Crude Prices: 2015 Forecast vs 2013



Source: SIA Energy

Sinopec E&P Profit Under Different Crude Prices: 2015 Forecast vs 2013



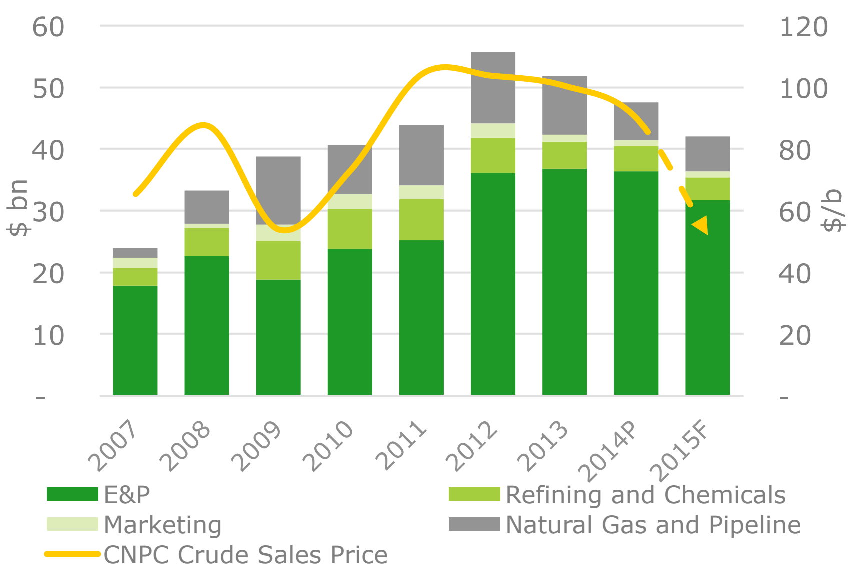
Source: SIA Energy

As per SIA's estimates, PetroChina's E&P gross profit will decreased more than 60% at $60/b Brent from the 2013 level.

Sinopec's E&P gross profit is much thinner due to higher costs and lower realized oil prices compared to CNPC. It will lose most of upstream profit at $60/b Brent.

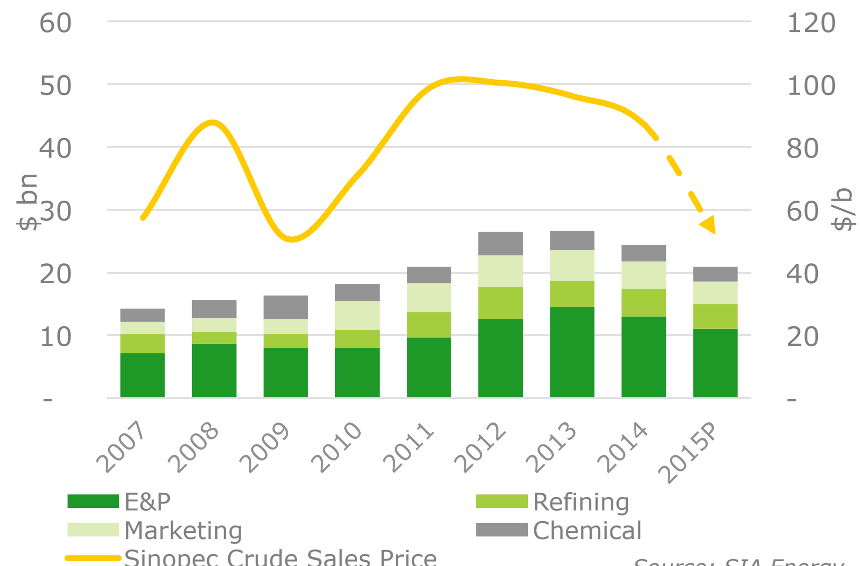
Crude Price Influence on NOC E&P Spending Cut

PetroChina Capex by Segment



Source: SIA Energy

Sinopec Capex by Segment

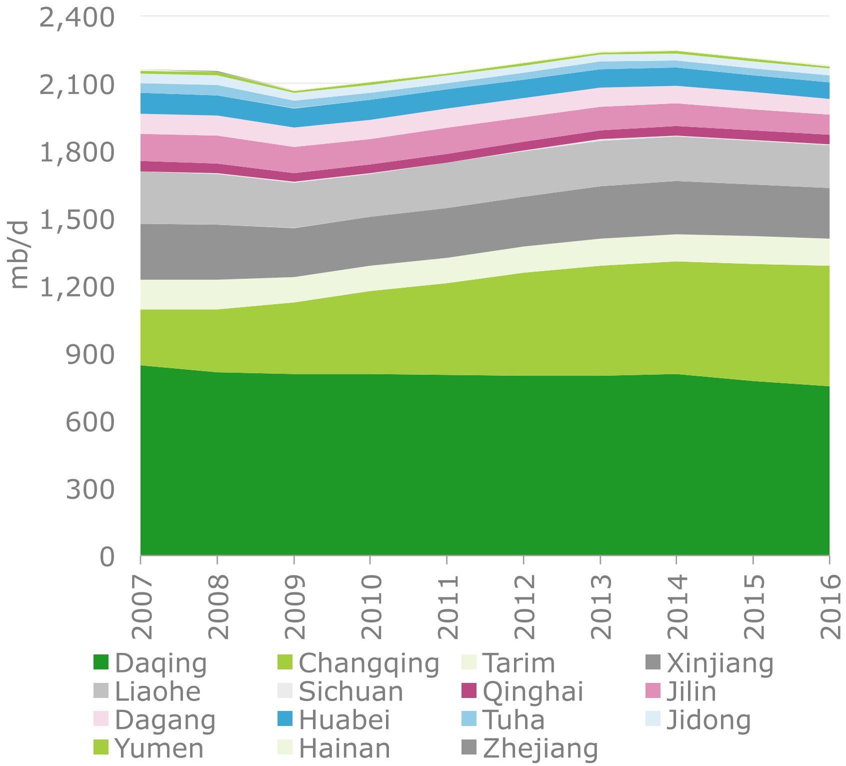


Source: SIA Energy

	CNPC	Sinopec
E&P – Domestic Oil	12% cut – CNPC has lowered Daqing's production target from 800 mb/d in 2014 to 640 mb/d by 2019. CNPC will import more ESPO blend from Russia to meet refinery need in northeast China.	15% cut – Like Daqing, Sinopec might lower Shengli's production target. Given its high cost of $47-49/b, it could be cheaper for the company to import crudes from overseas to meet refinery need.
Refining	18% cut - After a hasty refining capacity additions (695 mb/d) between 2009-2012, CNPC's refineries are facing regional over-supply challenges. The company will delay some new projects.	14% cut - Sinopec will freeze the green-field refining proposals and only move forward with brown-field expansion and upgrade projects to grow capacity. The NOC focuses on keeping high utilization and improving efficiency.

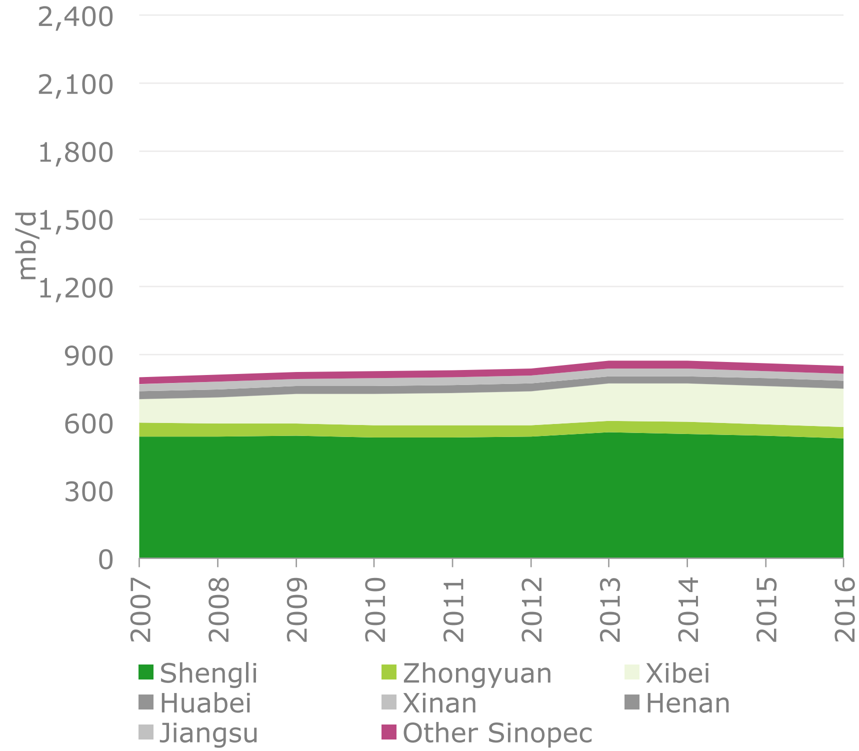
Crude Price Influence on China Oil Production

PetroChina: Domestic Oil Productoin



Source: SIA Energy

Sinopec: Domestic Oil Production



Source: SIA Energy

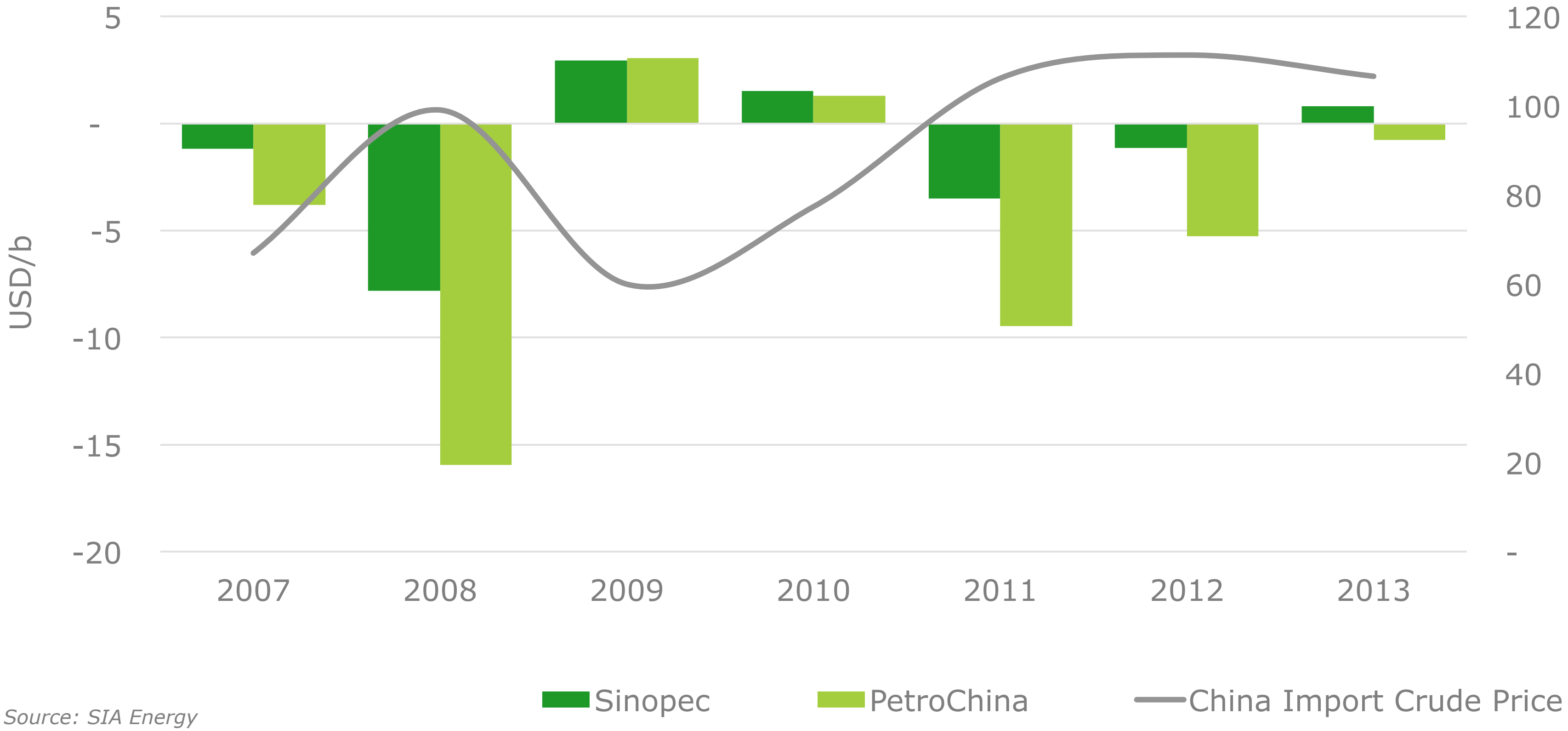
Short- to mid-term: mild decline as a result of production cuts in the onshore mature fields such as Daqing and Shengli

Long term: oil production plateau through 2020, afterwards steady decline

China will not aggressively cut production due to complicated reasons: 1) crude viscosity and API requires continued EOR efforts; 2) employment consideration; 3) refining configuration not easy to change; 4) control on import dependency.

Chinese NOC Refining Margins in Recent Years

Refining Margin: Sinopec vs PetroChina



Source: SIA Energy

Compared to CNPC, Sinopec refineries have better location, higher efficiency and petchem integration, higher realized product prices and lower feedstock costs.

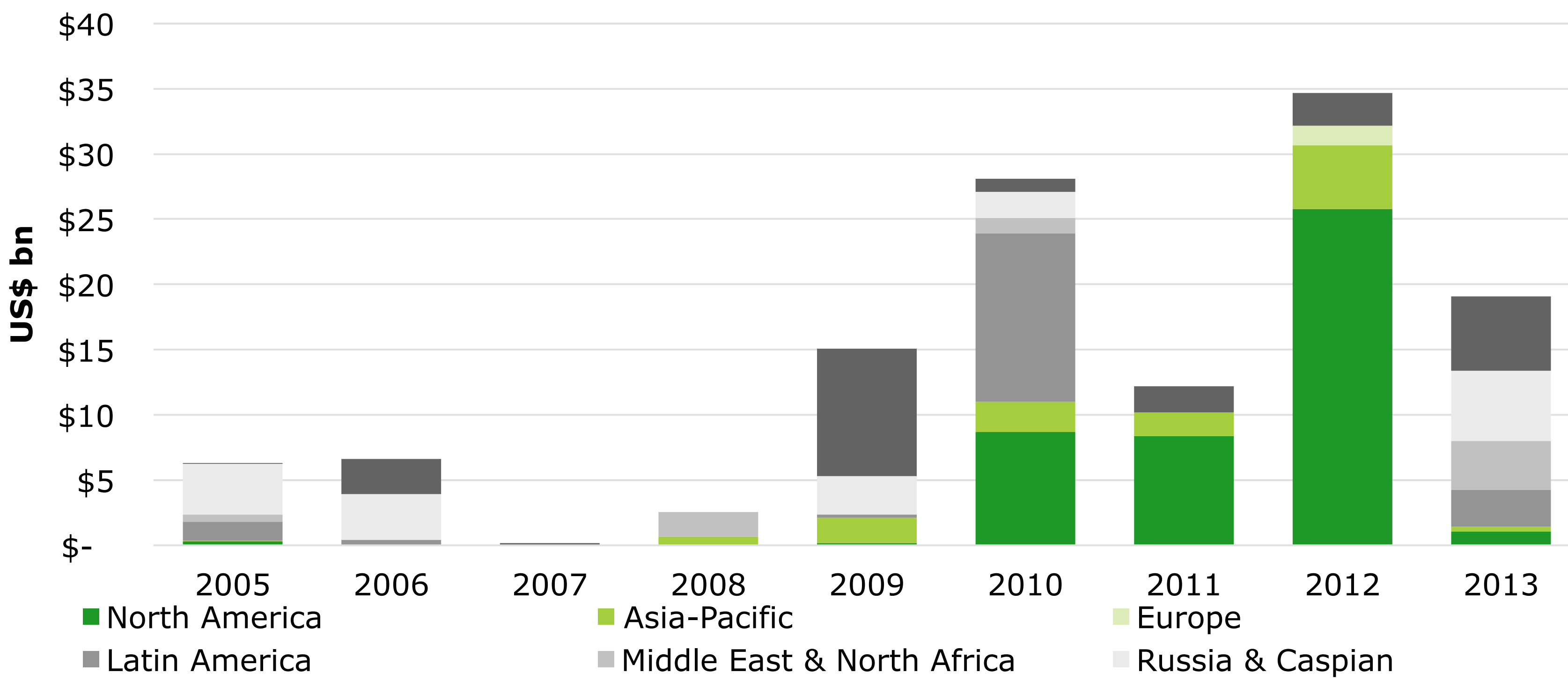
Sinopec imported 82% of crude feedstock from 36 countries (99 grades) in 2013.

CNPC: Refinery Map

Sinopec: Refinery Map

Will the NOCs Be Opportunistic Buyers?

Chinese NOCs: Acquisitions by Region

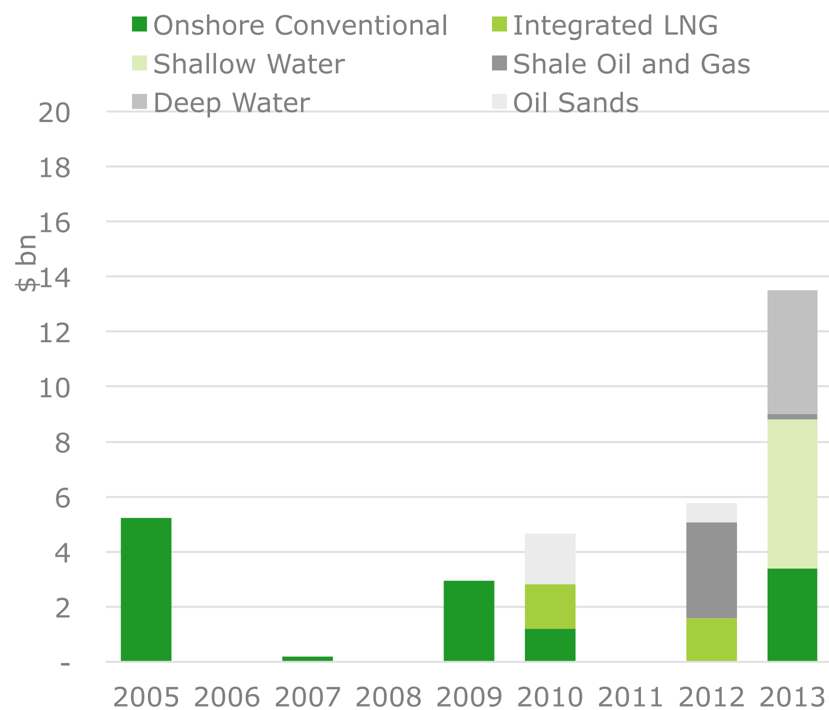


Source: SIA Energy

US$123.5 bn spent on overseas M&As by three Chinese NOCs between 2005 and 2013

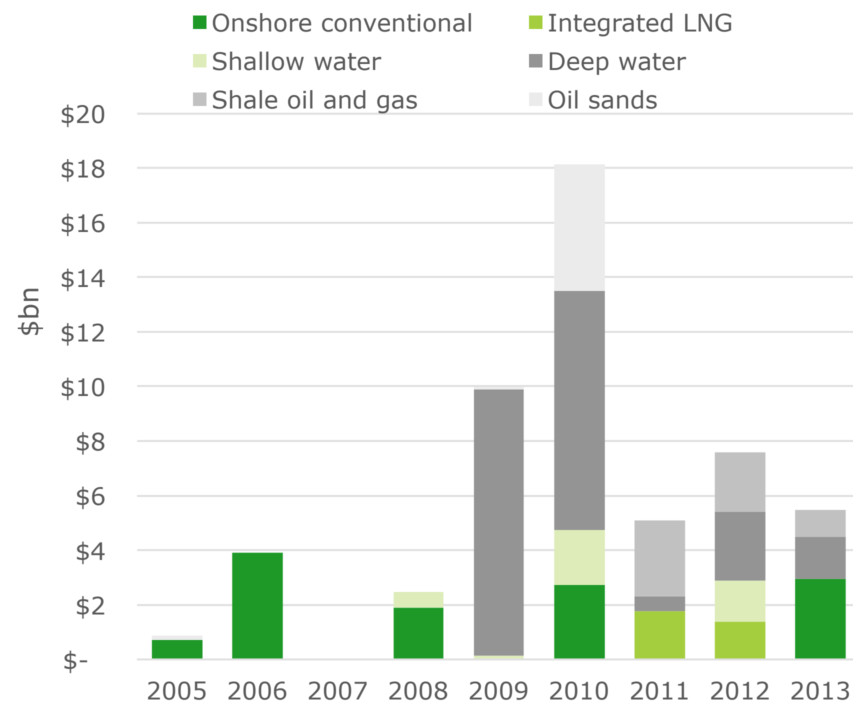
Will the NOCs Be Opportunistic Buyers?

CNPC: Acquisitions by Asset Class



Source: SIA Energy

Sinopec: Acquisitions by Asset Class



Source: SIA Energy

The low crude price may bring the best acquisition opportunities for North American unconventional oil and gas assets, but the NOCs do not have the appetite—cash flow or bank credit is not the real issue, the problems are: 1) they have not digested the unconventional assets acquired in the previous years, and 2) the top managers are afraid of taking on more risks at this sensitive moment. Small to mid-scale M&As are more likely, especially by Sinopec, but they tend to be de-risked oil assets that contribute to overseas equity production. CNPC, instead, has to prioritize their overseas gas asset monetization plans before make new offers.

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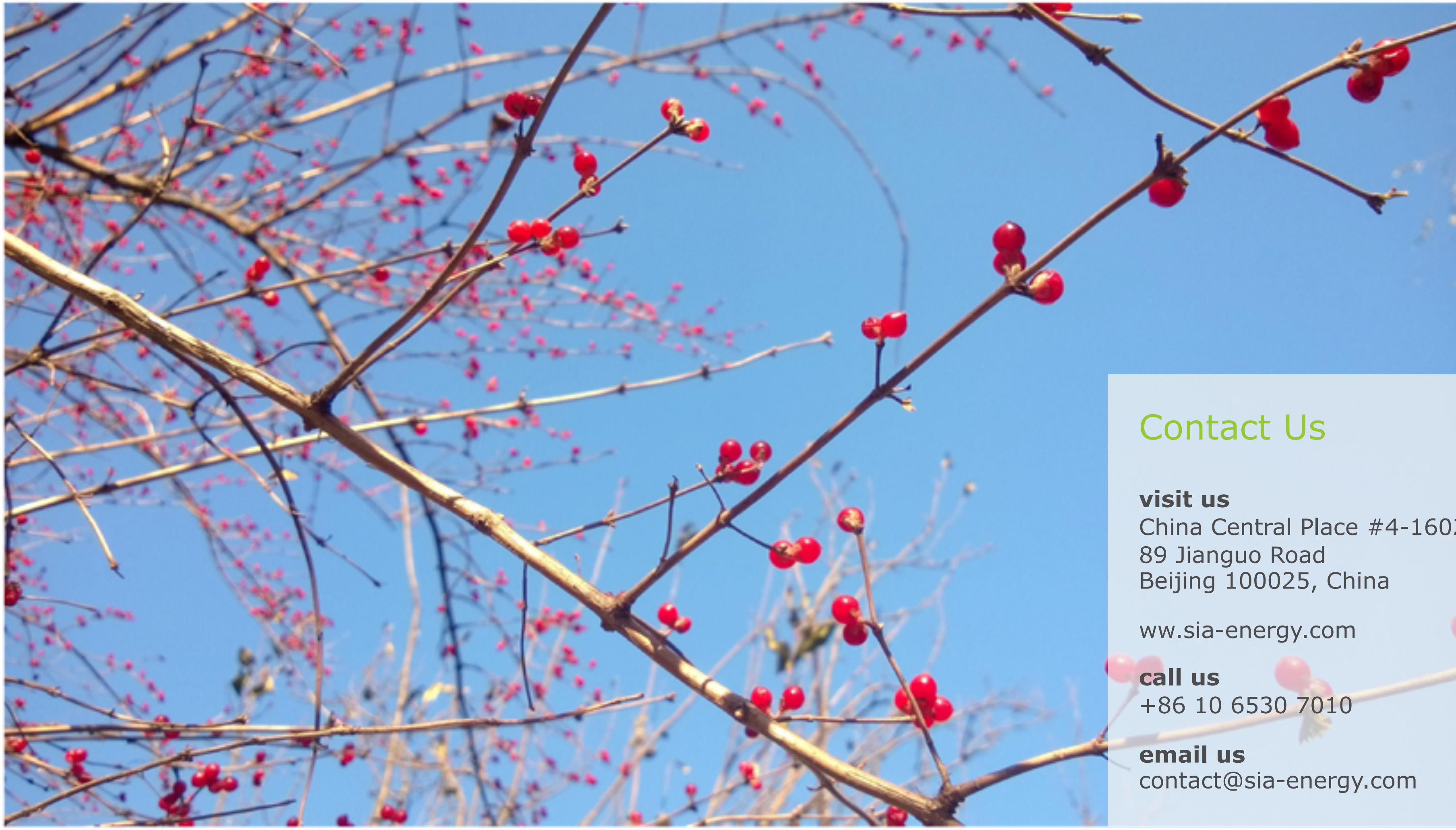

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